

REMARKS/ARGUMENTS

Re-examination and favorable reconsideration in light of the following comments are respectfully requested.

Claims 7, 9 - 14, 23, and 24 are pending in the application. Currently, all claims stand rejected.

By the present amendment, independent claims 7, 13 and 24 have been amended.

In the office action mailed November 17, 2006, claims 7, 9 - 13, 23 and 24 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,066,024 to Reisinger et al.; claims 7, 9 - 14, and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,026,252 to Hoffelner in view of U.S. Patent No. 5,688,105 or GB 2,304,158, both to Hoffelner; claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffelner and further in view of U.S. Patent No. 6,250,640 to Wolfe et al.; and claim 14 was rejected under 35 U.S.C. 103(a) as being unpatentable over Reisinger et al.

The foregoing rejections are traversed by the instant response.

With regard to the anticipation rejection of claims 7, 9 - 13, 23, and 24 over Reisinger et al., claim 7 as presented herein now calls for a brush seal segment, comprising: a pre-assembled bristle arrangement having a plurality of linear bristles with each of said bristles having a first end and a second end opposed to said first end, and a retention section attached to the second end of said bristles to join said bristles together; a pair of plates flanking said pre-assembled bristle arrangement and having a channel to frictionally engage said retention section, said channel extending to an end of at least one of said plates; each of said plates having a surface which abuts and contacts said bristles of said bristle

arrangement and at least one of said surfaces forming a portion of said channel; and wherein said channel allows movement of said retention section before said plates are secured together and prevents movement of said retention section after said plates are secured together.

Reisinger et al. relates to a brush seal which has a wire bundle which is bent in a U-shape and is surrounded by a radially inward slotted ring shape tube and by a housing consisting of two connected support rings. Reisinger et al. lacks a pre-assembled bristle arrangement having a plurality of linear bristles with each of the bristles having a first end and a second end opposed to the first end. Reisinger et al. also lacks a retention section attached to the second end of the bristles to join the bristles together. For these reasons, Reisinger et al. does not anticipate amended claim 7.

Claims 9 - 12 and 23 are allowable for the same reasons as claim 7 as well as on their own accord.

Claim 13 as amended herein is allowable over Reisinger et al. because Reisinger et al. lacks the claimed pre-assembled bristle arrangement and the claimed plate structure. For example, there are no plates in Reisinger et al. which have planar surfaces abutting each other.

Claim 24 is allowable over Reisinger et al. because Reisinger et al. lacks the claimed pre-assembled bristle structure and the claimed weld joint forming the retention section.

With regard to the rejection of claim 24 on obviousness grounds over Reisinger et al. in view of Wolfe, this rejection fails because it would not be possible to use a retention section in Reisinger et al. which join the second ends of the

bristles together. If one were to join the second ends of the bristles together, the seal would not function.

With regard to the obviousness rejection of claims 7, 9 - 14 and 23, independent claim 7 is directed to a brush seal segment comprising a pre-assembled bristle arrangement having a plurality of linear bristles having a first end and a second end and retention section attached to the second end of the bristles to join them together. The claim also calls for a pair of plates flanking the bristle arrangement and having a channel to frictionally engage the retention section. The channel extends to an end of at least one of the plates. The claim further calls for each of the plates to have a surface which abuts and contacts the bristles of the bristle arrangement with at least one of the surfaces forming a portion of the channel. Still further, the claim says that the channel allows movement of the retention section before the plates are secured together and prevents movement of the retention section after the plates are secured together.

At best, Hoffelner '252 illustrates the prior art where a plurality of bristles is positioned between two plates 8 and 9. Hoffelner '252 does not illustrate or discuss any retention section and does not illustrate or discuss the claimed channel which frictionally engages the retention section. The Examiner has taken the position now that the claimed retention section is inherent in Hoffelner '252. However, the Examiner has not met his burden of showing inherency. To establish inherency, the Examiner must show that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill. Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result

from a given set of circumstances is not sufficient. It is well known in the prior art to affix the bristles to plates merely by joining them directly to the plates using an adhesive or other joining material.

Thus, the Hoffelner '252 patent does not expressly show the claimed retention section and/or the claimed channel. For example, there is nothing in Hoffelner '252 which would indicate that there is any channel which allows movement of the retention section before the plates are secured together and prevents movement of the retention section after the plates are secured together. In fact, Hoffelner merely shows the inner ends of the bristles being positioned between the planar surfaces of plates 8 and 9.

The Hoffelner '105 and Hoffelner '158 patents do not cure the aforesaid deficiencies of Hoffelner '252. None of these references teaches or suggests a bristle arrangement having a pre-assembled bristle arrangement having the claimed retention section and a channel that frictionally engages the retention section. As can be seen from both of these patents neither teaches or suggests an arrangement where each plate has a surface which abuts and contacts the bristles of the bristle arrangement. In the Hoffelner '105 and '158 patents, the web (5) never contacts the bristles. In fact, there is a covering ring (6) positioned between the bristles and the web (5). Thus, even if one of ordinary skill in the art were somehow motivated to combine the references in the manner suggested by the Examiner, the modified device would not meet the limitation in claim 7 of each plate having a surface which abuts and contacts the bristles of the bristle arrangement arrangement.

With respect to independent claim 13, there is no disclosure in any of the references that the brush seal segment

is part of a packing ring. Further none of the Hoffelner references teaches or suggests frictionally engaging opposed sides of the retention section. Still further, as noted above, none of the references teach or suggest the claimed pre-assembled bristle arrangement. Yet further, none of the cited references teach or suggest the claimed plate structures.

As for claim 14, there is no disclosure in any of the references of the packing ring including a labyrinth seal.

Further, none of the cited and applied references teaches or suggests a channel having the width and length called for in claim 9. Further, none of the references teaches or suggests a channel located on both of the plates as set forth in claim 11.

Claims 10, 12 and 23 are allowable for the same reasons as claim 7 as well as on their own accord. None of the cited and applied references shows any channel located on at least one of the plates (claim 10), a bristle ring (claim 12), and/or a uniform channel depth (claim 23).

With respect to the obviousness rejection of claim 24, the Wolfe patent relied upon by the Examiner as showing the use of a weld joint does not cure the aforesaid deficiencies of Hoffelner '252. Claim 24 is allowable for the same reasons as claim 7. None of the cited and applied references teaches or suggests the claimed pre-assembled bristle arrangement and/or a channel frictionally engaging opposed sides of the retention section, which allows movement of the retention section before the plates are secured together and prevents movement of the retention section after the plates are secured together.

For the foregoing reasons, the instant application is in condition for allowance. Such allowance is respectfully solicited.

Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, he is hereby invited to contact Applicant's attorney at the telephone number listed below.

No fee is believed to be due as a result of this response. Should the Director determine that a fee is due, he is hereby authorized to charge said fee to Deposit Account No. 21-0279.

Respectfully submitted,

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Date: February 19, 2007

I, Antoinette Sullo, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on February 19, 2007.

